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PATENT



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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PRADE Applicant: Higgins

Examiner: Benny T. Lee

Serial No. 09/676,142

Art Unit: 2817

Filing Date:

September 29, 2000

For:

PHASE SHIFTING WAVEGUIDE AND MODULE UTILIZING THE

WAVEGUIDE FOR BEAM PHASE SHIFTING AND STEERING

**Assistant Commissioner for Patents** Washington, D.C. 20231

## <u>AMENDMENT TRANSMITTAL</u>

Sir:

Transmitted herewith is an Amendment for the Office Action dated January 16, 2003, along with 9 sheets of drawings.

The Commissioner is authorized to charge Deposit Account No. 18-1750 the amount of \$168.00 reflecting two additional independent claims. If any additional fee is required, charge Deposit Account No. 17-1850. A duplicate of this transmittal is attached.

Respectfully submitted,

March 7, 2003

ye G. Heyb

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MJ3-00SC048US7Transmittal

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Higgins

Serial No.: 09/676,142

Examiner: Benny T. Lee

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Title: PHASE SHIFTING WAVEGUIDE AND MODULE UTILIZING THE

WAVEGUIDE FOR BEAM PHASE SHIFTING AND STEERING

Assistant Commissioner for Patents Washington, D.C. 20231

AMENDMENT

Sir:

In response to the Office Action dated January 16, 2003, kindly amend the above application as follows:

## Drawings

Attached is a drawing sheet 5/9 with a redlined FIG. 5 and unmodified FIG. 8. Also attached are formal FIGs. 1-4 and 6, 7, 9-14 to be substituted with the informal drawing filed with this application on September 29, 2000.

## Specification

Replace the paragraph on page 3, lines 20-33, with the following:

A second impedance structure has been developed that is particularly applicable to the sidewalls and/or top and bottom walls of metal rectangular waveguides. M. Kim et al., A Rectangular TEM Waveguide with Photonic Crystal Walls for Excitation of Quasi-Optic Amplifiers, (1999) IEEE MTT-S, Archived on CDROM. Either two or four of the waveguide's walls can have this structure, depending upon

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